

bock1

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **21**
- SRM **19.3**
- Style **Traditional Bock**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **12.7 liter(s)**
- Total mash volume **15.8 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **63 C**, Time **30 min**
- Temp **73 C**, Time **50 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **12.7 liter(s)** of strike water to **56C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **63C**
- Keep mash **50 min** at **73C**
- Keep mash **10 min** at **78C**
- Sparge using **3.2 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	1.5 kg (47.4%)	81 %	4
Grain	Strzegom Monachijski typ II	0.8 kg (25.3%)	79 %	22
Grain	Weyermann - Melanoiden Malt	0.15 kg (4.7%)	81 %	53
Grain	Biscuit Malt	0.115 kg (3.6%)	79 %	45
Grain	Carared	0.5 kg (15.8%)	75 %	45
Grain	Weyermann Specjal W	0.1 kg (3.2%)	70 %	900

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau	18 g	60 min	4.1 %
Aroma (end of boil)	Perle	8 g	20 min	7 %